REMARKS

Claims 1 – 24 are pending. No claims are amended at this time.

Claim Objections

Claim 15 is objected to because of apparent informalities in the claim language. In rendering the objection, the Examiner partially and mistakenly quotes the language of claim 15 as:

> "the drive system incapable of initiating actuation when the switch is in the **close condition** ... the drive system capable of initiating actuation when the switch is in the **closed condition**".

It is unclear whether the objection is based on the apparent discrepancy between "close" and "closed" or on the apparent (but mistaken) lack of consistency regarding the drive system being both incapable of initiating actuation and capable of initiating actuation when the switch is in the close[d] condition.

Applicants have carefully reviewed the language of claim 15 as set forth in the Claims Appendix for the September 29, 2008 Appeal Brief and in the January 30, 2008 Response and Amendment. Applicants have been unable to identify the apparent discrepancy between "close" and "closed" identified in the Examiner's quotation in the pending claims, and believe it to be a typographical error on the part of the Examiner.

To the extent the objection is based on the apparent lack of consistency between the drive system being both incapable of initiating actuation and capable of initiating actuation when the switch is in the close[d] condition, claim language that was omitted from the Examiner's quotation of claim 15 (e.g., language associated with the ellipsis and language immediately following the Examiner's quotation) clarifies the apparent lack of consistency. Specifically, quoting claim 15:

> the drive system **[is]** incapable of initiating actuation when the switch is in the closed condition **and** the buckle and belt are in the disengaged state, [and] the drive system [is] capable of initiating actuation when the switch is in the closed condition **and** the buckle and belt are in the engaged state.

Thus, when viewed as a whole, claim 15 is fully consistent. The state of the buckle and belt (e.g., disengaged or engaged) determines whether the drive system will be capable of initiating actuation when the switch is in the closed condition. Applicants respectfully request reconsideration and withdrawal of the objection to claim 15.

Prosecution History

Before specifically addressing the newly-presented prior art rejections, Applicants believe it helpful briefly to summarize the recent prosecutorial history of this application.

In Office Actions dated October 4, 2007 and May 8, 2008, the Examiner rejected all claims under 35 U.S.C. §103(a) as being unpatentable over Tremblay (U.S. Patent No. 5,373,915) in view of Kang. In response to the October 4, 2007 Office Action, Applicants presented a series of arguments, supported by the Declaration of James R. Pierrou Pursuant to 37 C.F.R. §1.132 (the "Pierrou Decl."), demonstrating why the combination of Tremblay and Kang is improper. In the May 8, 2008 Office Action, the Examiner indicated that Applicants' arguments and the supporting Declaration were not persuasive, and restated verbatim the claim rejections based on the combination of Tremblay and Kang, making those rejections final. Applicants appealed the rejections to the Board of Patent Appeals and Interferences ("the Board").

In the Appeal proceedings, Applicants' Appeal Brief set forth **the same arguments** Applicants previously had submitted in response to the October 4, 2007 Office Action. Although Applicants' arguments were unchanged, the Examiner withdrew his rejections and re-opened prosecution by issuing the currently pending Office Action.

The present Response and the Supplemental Declaration of James R. Pierrou Pursuant to 37 C.F.R. §1.132 (the "Supp. Pierrou Decl.") are submitted in light of the newly cited prior art and continued rejection of all claims.

Claim Rejections – 35 U.S.C. §103

Claims 1, 2, 4, 7-9, 11-13, 15, 17, 20-22, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Deleo et al. (U.S. Patent No. 6,042,327) in view of Kang (U.S. Patent No. 4,785,906). Claims 3, 5, 6, 16, 18, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Deleo et al. in view of Kang and further in view of Goodrich (U.S. Patent No.

5,261,779). Claims 10, 14, and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Deleo et al. in view of Kang and further in view of Budd (U.S. Patent No. 6,077025).

Independent claim 1 recites:

> An assembly capable of moving a passenger from a first surface to an adjacent second surface wherein the surfaces are located at different vertical levels, the assembly comprising:
>
> an electrical system;
>
> a platform moveable to transport the passenger between the surfaces, the platform having an inboard end, an outboard end, and two opposing sides, the inboard end closer to the first surface than the outboard end;
>
> an arm coupled to the platform and to the first surface, the arm moveable to transfer the platform between the surfaces;
>
> a passenger support located above the platform;
>
> a safety restraint system coupled to the passenger support, the safety restraint system comprising:
>
> a belt coupled to the passenger support in a first location;
>
> a buckle releasably engagable with the belt and coupled to the passenger support in a second location;
>
> a current path having an open state and a closed state defined in part upon the releasable engagement between the buckle and the belt, the current path closed upon engagement between the buckle and the belt; and
>
> a motive source coupled to the electrical system and operable to move the arm, **the motive source incapable of initiating movement of the arm when the current path is open and capable of initiating movement when the current path is closed, the motive source capable of continuing movement of the arm regardless of the current path state within the buckle once movement is initiated.** (emphasis added)

Independent claim 11 recites:

> A safety restraint system usable with an electrically operated lift system, the safety restraint system comprising:
>
> a belt; and
>
> a buckle releasably engagable with the belt and having a current path defined within the buckle and coupled to the electrically operated lift system, the current path having an open state and a closed state defined in part upon the releasable engagement between the buckle and the belt, the current path closed upon engagement between the buckle and the belt, **the electrically operated lift system incapable of initiating movement when the current path is open and capable of initiating movement when the current path is closed, the electrically operated lift system capable of continuing movement regardless of the current path state within the buckle once movement is initiated.** (emphasis added)

Independent claim 15 recites:

> A lift mountable onto a vehicle for transporting a passenger between the floor of the vehicle and the street, the lift comprising:
> a platform coupled to the vehicle and moveable between the floor and the street, the platform having an inboard and an outboard end, the inboard end closer to the floor than the outboard end;
> a linkage defined in part by two arms pivotally coupled between the platform and the floor;
> an electrically operated drive system coupled to the linkage and actuateable to move the linkage;
> a pair of handrails coupled to the platform;
> a buckle coupled to one of the pair of handrails;
> a belt coupled to the other of the pair of handrails and removeably engaged with the buckle, the buckle and the belt having an engaged state and a disengaged state; and
> a user manipulable switch coupled to the electrically operated drive system, the switch having an open condition and a closed condition, **the drive system incapable of initiating actuation when the switch is in the closed condition and the buckle and belt are in the disengaged state, the drive system capable of initiating actuation when the switch is in the closed condition and the buckle and belt are in the engaged state, and the drive system capable of continuing actuation once begun when the switch is in the closed condition and the buckle and belt are in the disengaged state.** (emphasis added)

Independent claim 24 recites:

> A method of moving a passenger between the ground and a vehicle, the method comprising:
> moving the passenger onto a platform coupled to the vehicle;
> buckling a seatbelt about the passenger;
> actuating a switch to operate an electrical motive source coupled to the platform, **the motive source inoperable to move the platform from an at rest position without the seatbelt fastened and operable to move the platform from an at rest position with the seatbelt fastened, the motive source capable of being continually operable as the platform is moving regardless of the seatbelt being fastened;**
> powering the motive source;

Deleo teaches a wheelchair lift that is described as "well known in the art" (see col. 2, lines 15-55) with the sole exception of a "unity arm lever" feature that is wholly irrelevant with respect to the presently-claimed subject matter. Included among the self-described "well known" features is "[a]n occupant restraint belt 59 ... for restraining a person in the wheelchair

on the platform 22." (Col. 2, lines 51-53). At the time Deleo was filed, the configuration of the lift and, in particular, the occupant restraint belt 59 were apparently so well known that Deleo did not find it necessary to describe their configuration or operation in detail. (See col. 2, lines 53-55). As conceded by the Examiner, Deleo is silent regarding any structure or configuration that would prevent initiation of movement of the lift platform when the restraint belt 59 is not fastened, but that would allow movement of the lift platform to continue once begun regardless of whether the restraint belt 59 is fastened.

The Examiner therefore again cites Kang as teaching a seat belt assembly having a current path and configured to prevent starting of the engine of a vehicle unless the seat belt is fastened. Once the engine is running, the seat belt system of Kang is configured to allow the vehicle to start, be driven, and stopped even if the seat belt subsequently is unbuckled. Kang includes no teaching or suggestion regarding passenger lifts, motive sources for passenger lifts, or occupant restraints for passenger lifts.

Applicants' prior submissions in this Application set forth several reasons why the Examiner's prior obviousness rejections based on Tremblay and Kang were improper, including:

1. The Examiner was not considering the invention as a whole.
2. The references could not be combined because Tremblay teaches away from their combination.
3. The teachings of Tremblay significantly outweigh the teachings of Kang when considered by one skilled in the art.
4. At the time of the invention, the inventors were proceeding contrary to the accepted wisdom in the art.
5. The proposed modification changed the principle of operation of the Tremblay reference.

As discussed above, these arguments were deemed persuasive with respect to the rejections based upon Tremblay and Kang, and prompted the Examiner to re-open prosecution and issue the present rejections, which merely substitute Deleo for Tremblay. In so doing, the Examiner is apparently attempting to sweep the teachings of Tremblay under the rug. Tremblay, which is directed specifically to a restraint system for a passenger lift, undeniably teaches away from claimed invention. (*See, e.g.,* Pierrou Decl. ¶¶ 10-12, and Applicants Appeal Brief, p. 9).

By removing Tremblay as a primary reference and relying instead upon Deleo, the Examiner is trying improperly to limit the scope and content of the prior art only to the references being applied, while ignoring the understanding that one of ordinary skill in the art would have had based on *all available* prior art at the time of the invention. (See MPEP 2141 III.) The obviousness inquiry requires consideration of *all relevant evidence*.[1] Each prior art reference must be evaluated as an entirety, and all of the prior art must be evaluated as a whole.[2] Indeed, the person skilled in the art is imagined as working in a shop with all relevant prior art hanging on the walls.[3] Tremblay, which is directed specifically to allowing or preventing movement of a passenger lift based on the state of a passenger restraint belt, is clearly far more relevant to the claimed subject matter, and far more likely to have a prominent place on the hypothetical shop walls, than Deleo, which is silent on the issue. The Examiner cannot simply ignore the teachings of Tremblay by substituting Deleo in its place.

The *Graham* Factors

1. The Scope and Content of the Prior Art

The first of the *Graham* factors is determining the scope and content of the prior art. The pervasiveness of the teachings of Tremblay within the prior art available at the time of the present invention cannot be overstated. Indeed, at the time of the invention, the principles set forth in Tremblay (e.g., stopping all lift movement in response to an unsafe condition) had become defining characteristics of much of the development within the relevant industry. (Supp. Pierrou Decl. ¶8). Tremblay issued in December of 1994, and lifts incorporating the Tremblay system were sold throughout the mid 1990s by Ricon Corporation, assignee of Tremblay. (Supp. Pierrou Decl. ¶4). As part of its sales strategy, Ricon frequently and enthusiastically touted the safety benefits of the Tremblay system, so much so that by the late 1990s and early 2000s, the industry-wide trend was to incorporate an ever increasing number of "safety interlocks" into belt-type safety restraints and other restraints and barriers common to passenger lifts and other

[1] *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983) (emphasis added).

[2] *In re Evanega* 829 F.2d 1110, 4 USPQ2D 1249 (Fed. Cir. 1987); *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985); *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 225 USPQ 23 (Fed. Cir. 1985).

[3] *Union Carbide Corp. v. American Can Co.*, 724 F.2d 1567, 220 USPQ 584 (Fed. Cir. 1984).

"mobility industry" devices that enhanced mobility for a wheelchair-bound or mobility impaired individual. (Supp. Pierrou Decl. ¶¶ 5, 8).

The relevant prior art from within the mobility industry demonstrates that, at the time of the invention, known safety interlocks operated to prevent all movement of a mobility device in response to an unsafe condition. U.S. Patent No. 5,672,041 ("the '041 patent") was filed in June of 1995, roughly six months after Tremblay issued, and is assigned to Crow River Industries, Inc., which was one of a handful of competitors in the wheelchair lift industry at the time. (Supp. Pierrou Decl. ¶8). The '041 patent acknowledges the Tremblay safety restraint interlock system at col. 1, lines 25-29., and acknowledges other wheelchair lift prior art incorporating similar lockout switches and circuitry at col. 1, lines 53-54. The Budd reference, which is cited by the Examiner in rejecting some of the pending claims and has been discussed in prior submissions, was filed in August of 1999 and included a safety interlock switch circuit that prevented and arrested lift platform motion if a gate barrier was open or opened during movement of the lift platform. (See Budd, Abstract, Col. 12, lines 15-28 and 40-45). Similarly, U.S. Patent No. 6,612,802 ("the '802 patent") discloses an electrically actuated transfer seat for helping a handicapped individual into and out of a vehicle. The '802 patent discusses several safety interlocks for the transfer seat, including a specific discussion of safety belts and their associated interlocks that prevent movement of the transfer seat if the safety belt is not secured at Col. 5, lines 53-57 and Col. 6, line 44-46.

Thus, as a whole, at the time of the invention the prior art taught away from Applicants' invention. Like Tremblay, the prior art taught that lift movement should be stopped if a safety restraint or barrier opened after movement was initiated.

2. The Level of Ordinary Skill in the Art.

Another *Graham* factor is the determination of the level of ordinary skill in the art. Although not strictly an "automaton," a person of ordinary skill in the art is nonetheless presumed to be one of only ordinary common sense who thinks along the lines of conventional wisdom in the art, and is not one who undertakes to innovate.[4] The person of ordinary skill is also charged with knowledge of the entire body of technological literature, including that which

[4] *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (U.S. 2007); *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 227 USPQ 293 (Fed. Cir. 1985).

might lead away from the claimed invention.[5] Where the teachings of the prior art conflict, the examiner must weigh the suggestive power of each reference. (MPEP 2143.01 II.)[6] Given the state of the industry at the time of the invention, one skilled in the art, when confronted with the prior art as a whole, would not have arrived at the claimed invention because the overwhelming trend in the industry actually pointed away from the claimed invention.

At the time of the invention, there would have been no apparent advantage or benefit to implementing the vehicular safety restraint system of Kang in place of Tremblay's dedicated passenger lift restraint system that was widely accepted within the industry. *See*, *KSR*, 127 S.Ct. at 1744. It was only after the inventors discovered the *previously unrecognized* problem of potentially stranding a lift-occupant on a partially elevated lift that the advantages of such a system became clear and the claimed invention began to take shape. (Pierrou Decl. at ¶¶ 17-19). "Patentability shall not be negatived by the manner in which the invention was made." 35 U.S.C. § 103(a).

The Examiner's rejection under § 103(a) is predicated on the notion that one of skill in the art of *passenger lifts* would choose to follow the teachings of Kang over the teachings of Tremblay, Budd, the '041 patent, and the '802 patent. In the context of the invention, these references, directed to passenger lifts and other mobility devices, discredit the teachings of Kang, directed to vehicles, and would have carried far more suggestive power to one skilled in the art of passenger lifts at the time of the invention. The combination of Deleo and Kang proposed by the Examiner is therefore improper. (MPEP 2143.01 II. and MPEP 2145 X. D. 2.).

Furthermore, although Deleo does not explicitly discuss a safety restraint interlock system, one skilled in the art at the time of the invention, upon reading the statement in Deleo that the restraint belt 59 was "well known," would likely have concluded that the lift of Deleo in fact included the safety restraint interlock system of Tremblay. (Supp. Pierrou Decl. ¶7). Deleo was filed roughly three and a half years after Tremblay issued, and like Tremblay, is assigned to Ricon Corporation. As mentioned above, by the late 1990s the concepts of Tremblay had become widely adopted within the industry, Ricon was frequently touting the benefits associated with its system, and the Tremblay safety restraint system was included or available as an option

[5] *In re Dow Chem. Co.*, 837 F.2d 469, 5 USPQ2d 1529 (Fed. Cir. 1988).

[6] *In re Young*, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991).

on most Ricon lifts. (Supp. Pierrou Decl. ¶¶4, 5, 8). When viewed in a vacuum, Deleo does not appear to teach away from the claimed invention as Tremblay does, but when viewed through the eyes of one skilled in the art at the time of the invention, the statements of Ricon regarding the importance of halting all lift movement whenever the safety restraint is unfastened are as apparent in Deleo as they are in Tremblay.

When the full scope and content of the prior art is properly viewed as it would have been by one of ordinary skill in the art at the time of the invention, it is apparent that the inventors were proceeding contrary to the accepted wisdom in the mobility industry. Prior to the present invention, industry practice was to prevent *all movement* of the lift whenever certain safety conditions, particularly the fastening or closure of a safety barrier, were not met. (*See, e.g.,* Tremblay col. 2 lines 47-51, col. 5 lines 42-45 and 65-68, and col. 6 lines 9-12 and 32-36; Budd, col. 13, lines 22-25; Pierrou Decl. at ¶¶ 16, 17). In the context of a passenger lift combined with a safety restraint, the inventors were the first to appreciate the previously unrecognized problem associated with potentially stranding a lift passenger between the ground and the vehicle floor on an inoperable lift, and therefore developed the claimed system. (*See* Pierrou Decl. at ¶¶16-19). That the inventors proceeded contrary to the accepted wisdom of the art is strong evidence of non-obviousness with respect to the claimed invention.[7]

3. Objective Evidence of Non-Obviousness (Copying)

Another *Graham* factor is consideration of objective evidence of non-obviousness, such as, among other things, copying by others. As set forth in the Supp. Pierrou Decl. at ¶¶9-13, The Braun Corporation (assignee of this Application) began marketing and selling wheelchair lifts incorporating the system described and claimed in this Application in March of 2002. On Sept. 29, 2004, approximately two and a half years after Braun publicly introduced safety restraint systems incorporating the presently claimed invention, Maxon Lift Corporation, another competitor in the mobility industry and a manufacturer of similar wheelchair lifts, filed U.S. Patent Application Publication No. 2005/0238471 ("the '471 publication"). The '471 publication describes and claims a restraint belt interlock system that prevents initial movement of the lift if the safety restraint is not fastened, but that allows movement of the lift to continue if

[7] *In re Hedges,* 783 F.2d 1038, 228 USPQ 685 (Fed. Cir. 1986).

the safety restraint is unfastened after the lift has started to operate. (*See* the '471 publication at ¶¶23, 29, and 31, and claim 8).

As a competitor in the mobility industry and manufacturer of passenger lifts similar to those described in the present application and those described in Tremblay, there is little question that Maxon was aware of Ricon's system as described in Tremblay, which halts all movement, and Braun's system as described in the present application. That Maxon did not follow the teachings of Trembly but chose instead to copy the presently claimed invention is strong evidence that the claimed invention is not obvious.[8]

The *Prima Facie* Case of Obviousness

To establish a *prima facie* case of obviousness, the Examiner is required to articulate some reasoning in support of the obviousness rejection.[9] Throughout the Office action the Examiner cites "to facilitate safety of the passenger lift" as the reasoning behind the proposed combination of DeLeo and Kang that allegedly arrives at the claimed invention. This reasoning ignores the fact that at the time of the invention there was already a perfectly suitable and widely accepted method of facilitating the desired safety of the passenger lift, i.e., preventing all movement of the lift any time the safety restraint is not secured. Thus, at the time of the invention, one of ordinary skill in the art would not have looked to the vehicle-specific teachings of Kang to facilitate safety of the passenger lift as suggested by the Examiner, but would have looked to the widely accepted teachings of Tremblay relating specifically to passenger lifts with safety-restraints. The Examiner's assertion that at the time of the invention the desire to facilitate safety of the passenger lift taught by Deleo would have lead one of ordinary skill to incorporate the teachings of Kang ignores that the entire body of wheelchair lift-specific prior most likely to be followed by one of ordinary skill and ordinary common sense teaches away from the Examiner's proposed combination.

[8] *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 6 USPQ2d 1601 (Fed. Cir. 1988); *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985).

[9] *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

CONCLUSION

When the inventions claimed in claims 1, 11, 15, and 24 are viewed as a whole, and when the prior art is properly viewed as a whole through the eyes of one having ordinary skill at the time of the invention, the proper conclusion is that the inventions were not obvious and that the rejections under 35 U.S.C. §103(a) in view of Deleo and Kang are improper and should be withdrawn. Claims 1, 11, 15, and 24 are therefore allowable. Claims depending from claims 1, 11, 15, and 24 are therefore also allowable for the same and other reasons.

Applicants' undersigned representative is available for telephone consultation during normal business hours.

Respectfully submitted,

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Mathew G. Gavronski, Reg. No. 62,617
Martin L. Stern, Reg. No. 28,911
MICHAEL BEST & FRIEDRICH LLP
Two Prudential Plaza
180 North Stetson Avenue, Suite 2000
Chicago, Illinois 60601
Tel: (312) 222-0800
Fax: (312) 222.0818
Attorney Docket No. 018778-9026-01